REMARKS

Reconsideration is respectfully requested in view of the remarks herein.

The Invention

A recent design trend toward the use of laminated safety glass in open edge windshield applications and in automobile sidelights has necessitated the need for laminated glass with improved adhesion robustness. In these open edge applications, the edge of the windshield is not encased with a gasket, but is exposed to the environment. Exposure of a polyvinyl butyral (PVB) interlayer to the environment can result in moisture being absorbed into the interlayer. Moisture absorbed into the interlayer can affect the adhesion of the interlayer to the glass, and thereby cause defects in the laminate. Applicants have discovered that the ratio of potassium ions to magnesium ions present in a PVB composition is an important parameter for improving adhesion robustness in a PVB laminate. The importance of the ratio of potassium ions to magnesium ions and the effect of the ratio of said salts on adhesion robustness in a PVB laminate has not been fully appreciated or described in the art.

The invention is directed to plasticized polyvinyl butyral compositions containing PVB. The PVB contains from about 17 wt% to about 23 wt% residual and hydroxyl, plasticizer in an amount of from about 30 to about 50 parts per hundred (pph) PVB.

According to claim 1, the PVB contains an adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 4:1 to about 5:1 (weight:weight, potassium:magnesium). The salts are included in a total concentration of up to about 1000 parts per million (ppm) based on the total weight of the composition. Claim 13 is directed to a glass/polyvinyl butyral laminate wherein the polyvinyl butyral comprises the plasticized polyvinyl butyral composition of claim 1.

According to claim 3, the plasticizer is tetraethylene glycol di(2-heptanoate) (4G7) and the adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 2:1 to about 5:1 (weight:weight, potassium:magnesium). The salts are included in a total concentration of up to about 1000 parts per million (ppm) based on the total weight of the composition. Claim 4 depends from claim 3 and recites that the ratio is from about 3:1 to about 5:1. Claim 33 is directed to a glass/polyvinyl butyral laminate composition wherein the polyvinyl butyral comprises the plasticized polyvinyl butyral composition of claim 3.

The claimed compositions have adhesion robustness for use of the PVB compositions in laminates.

Rejections Over EP 1 022 264

In paragraph 4, claims 1, 3-8, 11, 12 and 17-32 stand rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over EP 1 022 264.

Applicants believe the Action intended to refer to EP 1 022 261 (EP '261) since that document was made of record by the Examiner and since EP 1 022 264 is directed to "Low temperature-fired porcelain articles and electronic parts including such porcelain articles."

The Action states that EP '261 shows plasticize polyvinyl butyral (PVB) compositions, and shows incorporation of potassium and magnesium salts as claimed. The Action points to paragraph 0088-0091 of EP '261.

The Action states that EP '261 contains examples where the ratio of potassium and magnesium either anticipates and/or renders obvious the claimed ratio, and points to paragraphs 0304-0310 to support this position. In addition, the Action states that EP '261 is not limited by its examples, as the relative amounts of the salts disclosed would result in compositions that can have the claimed ratios. The Action concludes that the claims are rendered *prima facie* obvious "given the teaching of the relative amounts of salts that one is directed to use would result in the claimed ratio."

Applicants traverse this rejection for the reason that EP '261 doesn't teach or suggest the claimed invention, and leads away from the claimed invention.

EP '261 teaches away from claim 1. First, EP '261 teaches a strong preference for use of alkaline earth metal salts, particularly magnesium salts, and over alkali metal salts (such as potassium and sodium salts). In addition, it can be seen that EP '261 states that if the alkali metal salts, such as potassium salts, are used then they should be used in small amounts and should have a small particle size. Moreover, the specification contains nothing that would lead the person of ordinary skill in the art to use a combination of magnesium and potassium salts, and the only time they are used together is in two examples where there is no explanation given for why they are used together and they are used in a much smaller ratio than in claim 1. Given (a) that claim 1 is focused on use of an adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 4:1 to about 5:1 (weight:weight, potassium:magnesium), (b) that EP '261 indicates a preference for not using potassium salts (e.g., provides strong teachings that magnesium should be used by itself), (c) that EP '261 states that if the alkali metal salts, such as potassium salts, are used then they should be used in small amounts and should have a small particle size, and (d) the only place in EP '261 where the two salts are inexplicably used together is in two examples where the ratio is much smaller than claimed, the person of ordinary skill in the art is led away from the claimed invention by EP '261, and the rejections over EP '261 should be withdrawn with respect to claim 1 and the claims dependent thereon.

EP '261 also teaches away from the invention of claim 3. EP '261 indicates a strong preference for use of alkaline earth metal salts, particularly magnesium salts, and over alkali metal salts (such as potassium and sodium salts). In addition, EP '261 states that if the alkali metal salts, such as potassium salts, are used then they should be used in small amounts and

should have a small particle size. Further, claim 3 is focused on use of tetraethylene glycol di(2-heptanoate) (4G7) as the plasticizer. EP '261 teaches away from using 4G7 as a plasticizer in paragraphs 0100-0101. Given that (a) claim 3 is focused on use of an adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 2:1 to about 5:1 (weight:weight, potassium:magnesium) in combination with a 4G7 plasticizer, (b) that EP '261 indicates a preference for not using potassium salts (e.g., provides strong teachings that magnesium should be used by itself), (c) that EP '261 states that if the alkali metal salts, such as potassium salts, are used then they should be used in small amounts and should have a small particle size, (c) that EP '261 teaches away from using 4G7 as a plasticizer, and (d) the only place in EP '261 where the two salts are inexplicably used together is in two examples where the catalyst is 3GO, not 4G7, the person of ordinary skill in the art is led away from the claimed invention by EP '261, and the rejections over EP '261 should be withdrawn with respect to claim 3 and the claims dependent thereon.

EP '261 is directed to laminated glass for use in high humidity environments, i.e., glass laminates where the periphery of the plasticized PVB is exposed to the atmosphere. In those instances, the PVB interlayer can blush (whiten) due to the increased exposure to moisture.

EP'261 focuses on the desired results and seems to teach a number of approaches that should be used to solve the blushing problem. This can be seen from claim 1, which is focused on the desired results as opposed to how to achieve it. Claim 1 is directed to "An interlayer film for laminated glass consisting essentially of a plasticized poly(vinyl acetal) resin and having the haze of not more than 50%, as measured by using an integrating turbidi meter manufactured by Tokyo Denshoku, when said interlayer film with a thickness of 0.3 to 0.8 mm is cut to 4 x 4 cm and immersed in deionized water at 23°C for 24 hours." (See also, paragraph 0031.) The remaining claims are then focused on things that can be done to help achieve the desired result, and those items are described in the specification.

According to EP '261 paragraph 0004 the blushing phenomena is associated with the additive used for adjusting the bond strength between the interlayer and the glass. Paragraph 0026 explains the process for producing poly(vinyl acetal) resins (such as PVB) comprises a step of neutralization. Paragraph 0052 describes use of sodium and potassium salts in the neutralization step. Paragraph 0054 then describes that alkali metal salts (such as potassium and sodium salts) and alkaline earth metal salts (such as magnesium salts) are usable as the neutralizing agent. Paragraph 0054 then states that the alkaline earth metal salts (such as magnesium and calcium salts) are preferable over the alkali metal salts (such as potassium and sodium salts) because the alkaline earth metal salts (such as magnesium and calcium salts) can prevent blushing under high humidity conditions.

EP '261 seems to be saying that the reason presented is that the residual alkali metal salts forms particles during polymerization and/or drying, and those particles promote the aggregation of water on the occasion of water absorption by the PVB, hence serve as a major cause of blushing of the product interlayer film for laminated glass due to moisture absorption. Furthermore, a alkali metal salt may remain even in poly(vinyl alcohol) in some instances, and this salt may also serve as a cause of blushing of the interlayer film for laminated glass due to moisture absorption in certain instances.

EP '261 then states that the amounts and particle size of the alkali metal salts should be kept small. Paragraph 0045 states that the particle diameter of a sodium or potassium salt in the interlayer film is preferably not more than 5 μm. The reason presented in paragraph 0046 is that when the sodium or potassium salt has a particle diameter greater than 5 μm, the salt particles may promote water aggregation and become a primary cause of blushing of the obtained interlayer film due to moisture absorption. Paragraph 0049 states that the sodium concentration the interlayer film is preferably not more than 50 ppm, and the potassium concentration in the interlayer film is preferably not more than 100 ppm. More preferably, the sodium concentration should be not less than 0.5 ppm and not more than 15 ppm, and the potassium concentration should be not less than 0.5 ppm and not more than 100 ppm. Paragraph 0050 explains that when the sodium content of the interlayer film is over 50 ppm and/or the potassium content is over 100 ppm, water molecules gather around the sodium element and potassium element and grow to macroscopic sizes, whereupon blushing may become prominent. It adds: "To prepare an interlayer film having a sodium content of less than 0.5 ppm and a potassium content of less than 0.5 ppm is not preferred from practical points of view in some instances, since the step of washing for eliminating the remaining sodium element or potassium element coming from the resin preparation step must be excessively prolonged and/or the degree of purification of water and other raw materials must be raised, among other measures, hence much time and expenses are required."

Paragraph 0054 then comments that "alkaline earth metals, when remaining in the interlayer film in fairly large amounts, can prevent blushing under high humidity conditions, hence are preferred." Paragraph 0055 then recommends use of alkaline earth metal salts and mentions use of magnesium salts such as magnesium hydrogen carbonate, magnesium hydroxide, basic magnesium carbonate, barium salts such as barium hydroxide, and calcium salts such as calcium hydroxide.

In paragraphs 0088-0093 EP '261 discloses use of alkali metal salts and alkaline earth metal salts as a bond strength control agent. The alkali metal salts and alkaline earth metal salts include but are not limited to potassium salts, sodium salts, magnesium salts and so forth. Magnesium salts are preferred. No mention is made in these paragraphs of blends of magnesium salts with other salts.

In fact, contrary to the assertion in the Action and consistent with the above description of the preference for of alkaline earth metal salts, EP '261 indicates a preference for use of the magnesium salts as the bond strength control agents since they provide good bond strength control and improved penetration resistance, without causing excessive blushing upon moisture absorption. (See, paragraph 0092.) The above can be seen from the following portions of EP '261:

> **[0088]** In the present invention, it is preferred that the interlayer film for laminated glass contain at least one salt selected from the group consisting of alkali metal salts and alkaline earth metal salts as a bond strength control agent.
>
> **[0089]** Said alkali metal salts and alkaline earth metal salts include but are not limited to potassium salts, sodium salts, magnesium salts and so forth. As the salt-forming acid, there may be mentioned organic acids, for example carboxylic acids such as octylic acid, hexylic acid, butyric acid, acetic acid and formic acid; and inorganic acids such as hydrochloric acid and nitric acid.
>
> **[0090]** Among the alkali metal salts and alkaline earth metal salts mentioned above, alkali metal salts of organic acids containing 5 to 16 carbon atoms and alkaline earth metal salts of organic acids containing 5 to 16 carbon atoms are preferred. More preferred are the magnesium salts of carboxylic acids or dicarboxylic acids containing 6 to 10 carbon atoms.
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> **[0091]** Said magnesium salts of carboxylic acids or dicarboxylic acids include but are not limited to magnesium 2-ethylbutyrate, magnesium valerate, magnesium hexanoate, magnesium heptanoate, magnesium octanoate, magnesium nonanoate, magnesium decanoate, magnesium glutarate and magnesium adipate.
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> **[0092]** It is supposed that the magnesium salts of carboxylic acids or dicarboxylic acids containing 6 to 10 carbon atoms occur in the form of salts in the sheet without electrolytic dissociation, and attract water molecules, making it possible to suppress the bond strength between the interlayer film and glass, with the result that the penetration resistance of the product laminated glass can be improved. Furthermore, since they are distributed in high concentrations on the sheet surface without aggregation in the sheet, they show a bond strength modifying effect even in small amounts, without causing excessive blushing upon moisture absorption, therefore they are preferable.

One of the few places that the specification of EP '261 mentions combinations of bond strength control agents is in paragraph 0105. Paragraph 0105 makes **no** mention of using magnesium salts with potassium salts. Instead, it focuses on using *different magnesium salts together or with silicon oils*. Paragraph 0105 states:

> **[0105]** The above-mentioned carboxylic acid metal salt as the bond strength control agent may be used independently or in combination with another bond strength control agent, for example a bond strength control agent of metal salt of carboxylic acid containing 1 to 4 carbon atoms type such as magnesium formate, magnesium acetate, magnesium propanoate or magnesium butanoate, or a modified silicone oil bond strength control agent such as mentioned later herein.

Paragraphs 0107 ties some of the teachings pertaining to the neutralization step and bond control agent together. Paragraph 107 again points out that when alkali metal salts (such as potassium and sodium salts) are used, only small amounts should be used. There, EP '261 states:

> **[0107]** When the alkali metal salt is a sodium salt, blushing tends to occur very readily, so that the sodium concentration should preferably be not more than 50 ppm. When the alkali metal salt is a potassium salt, too, blushing may occur readily, hence the potassium concentration should preferably be not more than 100 ppm.

From the above, it can be seen that EP '261 indicates a strong preference for use of alkaline earth metal salts, particularly magnesium salts, and over alkali metal salts (such as potassium and sodium salts). In addition, it can be seen that EP '261 states that if the alkali metal salts, such as potassium salts, are used then they should be used in small amounts and should have a small particle size.

Given claim 3, it is also important to look at what is taught in EP '261 concerning plasticizers. While claim 1 is not specific to any plasticizer, claim 3 is focused on use of tetraethylene glycol di(2-heptanoate) (4G7) as the plasticizer. EP '261 teaches away from using 4G7 as a plasticizer in paragraphs 0100-0101. Those paragraphs state:

> **[0100]** For preventing the above plasticized poly(vinyl acetal) resin as far as possible from undergoing heat-induced hydrolysis in the sheet forming step, the use of plasticizers less susceptible to hydrolysis such as plasticizers of the side chain type, such as 3GH, 3GO and 4GO, or of the adipate type, such as DHA, is preferred to the use of such plasticizers as triethylene glycol diheptanoate (3G7) and tetraethylene glycol diheptanoate (4G7).

> **[0101]** Said 3GH has long been in use as a plasticizer in interlayer films with practically acceptable results and the organic acid constituent thereof is of the side chain type. Therefore, 3GH is more advantageous than 3G7, 4G7 and the like, which are of the straight chain type, in that it is less hydrolyzable. The above-mentioned 3GO and 4GO are advantageous in that they are higher in boiling point than 3GH, for instance, and therefore are less volatile in the sheet forming step or in the lamination step.

Thus, EP' 261 teach away from using 4G7 as claimed in claim 3.

Given the above, and given that the specification makes no mention of using potassium and magnesium salts, applicants next review the examples to determine if the claimed invention is described or suggested. The Actions paragraphs focuses on paragraphs 0304-0310 of EP '261, so applicants have reproduced the pertinent set of examples below.

The examples described in paragraph 0304-0310 are summarized in Table 15 of EP '261, which is reproduced below:

Table 15

		Plasticizer	Metal salt of carboxylate (the bond strength control agent)		Pammer value			Haze after 24 hours of immersion (%)
		kind (amount)	kind	amount ($\times 10^{-4}$ mole)	Initial	Passed time A	Passed time B	
Example	70	3G0 (38)	magnesium 2-ethylbutanoate	0.071 (2.8)	5	5	5	42
	71	3G0 (38)	magnesium octanoate	0.087 (2.8)	5	5	4	34
	72	3G0 (38)	magnesium 2-ethylhexanoate potassium formate	0.061 (2.0) 0.021 (2.5)	5	4	4	38
	73	3G0 (38)	magnesium 2-ethylbutanoate	0.071 (2.8)	5	5	5	21
	74	3G0 (38)	magnesium 2-ethylpentanoate	0.079 (2.8)	5	3	2	37
	75	3G0 (38)	magnesium 2-ethylhexanoate	0.087 (2.8)	5	3	1	33
	76	3G0 (38)	magnesium nonanoate	0.095 (2.8)	5	2	1	29
	77	3G0 (38)	magnesium decanoate	0.103 (2.8)	5	2	1	32
	78	3G0 (38)	magnesium 2-ethylhexanoate potassium formate	0.061 (2.0) 0.021 (2.5)	5	3	2	39
Compar. Example	27	3G0 (38)	magnesium acetate	0.040 (2.8)	5	5	5	92

From the Table, it can be seen that the only examples that show mixtures of magnesium and potassium salts are Examples 72 and 78. Both of these examples used 0.021 parts (2.5×10^{-4} moles) potassium formate. Both of these examples use triethylene glycol

di(2-ethylhexanoate) (3GO) as a plasticizer and a mixture of potassium and magnesium salts in a ratio of 2.06:1 (weight:weight, potassium:magnesium).

According to claim 1, the PVB contains an adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 4:1 to about 5:1 (weight:weight, potassium:magnesium). The salts are included in a total concentration of up to about 1000 parts per million (ppm) based on the total weight of the composition. Claim 13 is directed to a glass/polyvinyl butyral laminate wherein the polyvinyl butyral comprises the plasticized polyvinyl butyral composition of claim 1.

From the above, it can be seen that EP '261 teaches away from claim 1. First, EP '261 teaches a strong preference for use of alkaline earth metal salts, particularly magnesium salts, and over alkali metal salts (such as potassium and sodium salts). In addition, it can be seen that EP '261 states that if the alkali metal salts, such as potassium salts, are used then they should be used in small amounts and should have a small particle size. Moreover, the specification contains nothing that would lead the person of ordinary skill in the art to use a combination of magnesium and potassium salts, and the only time they are used together is in two examples where there is no explanation given for why they are used together and they are used in a much smaller ratio than in claim 1. Given (a) that claim 1 is focused on use of an adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 4:1 to about 5:1 (weight:weight, potassium:magnesium), (b) that EP '261 indicates a preference for not using potassium salts (e.g., provides strong teachings that magnesium should be used by itself), (c) that EP '261 states that if the alkali metal salts, such as potassium salts, are used then they should be used in small amounts and should have a small particle size, and (d) the only place in EP '261 where the two salts are inexplicably used together is in two examples where the ratio is much smaller than claimed, the person of ordinary skill in the art is led away from the claimed invention by EP '261, and the rejections over EP '261 should be withdrawn with respect to claim 1 and the claims dependent thereon.

According to claim 3, the plasticizer is tetraethylene glycol di(2-heptanoate) (4G7) and the adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 2:1 to about 5:1 (weight:weight, potassium:magnesium). The salts are included in a total concentration of up to about 1000 parts per million (ppm) based on the total weight of the composition. Claim 4 depends from claim 3 and recites that the ratio is from about 3:1 to about 5:1. Claim 33 is directed to a glass/polyvinyl butyral laminate composition wherein the polyvinyl butyral comprises the plasticized polyvinyl butyral composition of claim 3.

From the above, it can be seen that EP '261 indicates a strong preference for use of alkaline earth metal salts, particularly magnesium salts, and over alkali metal salts (such as potassium and sodium salts). In addition, it can be seen that EP '261 states that if the alkali

metal salts, such as potassium salts, are used then they should be used in small amounts and should have a small particle size. Further, claim 3 is focused on use of tetraethylene glycol di(2-heptanoate) (4G7) as the plasticizer. EP '261 teaches away from using 4G7 as a plasticizer in paragraphs 0100-0101. Given that (a) claim 3 is focused on use of an adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 2:1 to about 5:1 (weight:weight, potassium:magnesium) in combination with a 4G7 plasticizer, (b) that EP '261 indicates a preference for not using potassium salts (e.g., provides strong teachings that magnesium should be used by itself), (c) that EP '261 states that if the alkali metal salts, such as potassium salts, are used then they should be used in small amounts and should have a small particle size, (c) that EP '261 teaches away from using 4G7 as a plasticizer, and (d) the only place in EP '261 where the two salts are inexplicably used together is in two examples where the catalyst is 3GO, not 4G7, the person of ordinary skill in the art is led away from the claimed invention by EP '261, and the rejections over EP '261 should be withdrawn with respect to claim 3 and the claims dependent thereon.

Dependent Claims

Applicants also direct the Patent Office's attention to claims 6-8, which read:

6. (Previously Presented) The plasticized polyvinyl butyral composition of Claim 1 wherein the salts are included in a total concentration of from about 200 to about 1000 ppm.

7. (Previously Presented) The plasticized polyvinyl butyral composition of Claim 3 wherein the salts are included in a total concentration of from about 200 to about 1,000 ppm.

8. (Previously Presented) The plasticized polyvinyl butyral composition of Claim 1 wherein the salts are included in a total concentration of from about 300 to about 800 ppm.

Applicants submit that these claims further distinguish the invention over EP '261 since by reciting a ratio of the adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio and taking into account the minimum total amounts one can calculate the minimum weight of a potassium salt covered by a claim.

Paragraph 0049 states that the sodium concentration the interlayer film is preferably not more than 50 ppm, and the potassium concentration in the interlayer film is preferably not more than 100 ppm. More preferably, the sodium concentration should be not less than 0.5 ppm and not more than 15 ppm, and the potassium concentration should be not less than 0.5 ppm and not more than 100 ppm.

For instance, using potassium acetate and magnesium acetate as the salts one could calculate the amount of potassium salt so as to compare to the maximum amount described in paragraph 0049 of EP '261. Below are some examples of the amounts that were calculated.

200 ppm total salt concentration
2:1 ratio---36 ppm K and 18 ppm Mg (196 ppm total salt)
5:1 ratio----55 ppm K and 11 ppm Mg (203 ppm total salt)

300 ppm total salt concentration
4:1 ratio----75 ppm K and 18.8 ppm Mg (300 ppm total salt)
5:1 ratio----82 ppm K and 16.4 ppm Mg (303 ppm total salt)

Thus, applicants submit that these claims further distinguish the invention from EP '261 and respectfully request that the rejections over EP '261 should be withdrawn with respect to these claims.

Rejections Over JP 2000-302490

In paragraph 4, claims 1, 3-8, 11, 12 and 17-32 stand rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over JP 2000-302490 (JP '490).

The Action states that JP '490 shows plasticized polyvinyl butyral (PVB) compositions, and shows incorporation of potassium and magnesium salts as claimed. The Action points to paragraph 0028 of JP '490.

The Action states that JP '490 contains examples where the ratio of potassium and magnesium either anticipates and/or renders obvious the claimed ratio, and points to Example 4 to support this position. In addition, the Action states that JP '490is not limited by its examples, as the relative amounts of the salts disclosed would result in compositions that can have the claimed ratios. The Action concludes that the claims are rendered *prima facie* obvious "given the teaching of the relative amounts of salts that one is directed to use would result in the claimed ratio."

Applicants traverse for the reason that JP '490 does not teach or suggest the claimed invention.

JP '490 is directed to glass laminates having superior adhesiveness in moist environments. Reference is made to antiscatter properties and penetration resistance.

Paragraphs 0021 et seq. describe use of a variety of plasticizers, but JP '490 only shows use of triethylene glycol di-2-ethyl hexanoate and triethylene glycol di-2-ethyl butyrate in Table 2. Moreover, JP '490 contains a strong preference for triethylene glycol di-2-ethyl hexanoate and that is the only plasticizer mentioned in the claims.

Paragraphs 0028-0029 describe the adhesion strength regulation agents can be potassium and magnesium salts. Mixtures of potassium and magnesium salts are not

described. Like EP '261, JP '490 indicates are preference for magnesium salts and this seems to be to avoid excessive whitening of the periphery of the laminated glass.

The only mention of using potassium and magnesium salts together is in Example 4. The mixture of potassium and magnesium salts is in a ratio of 3.12:1 (weight:weight, potassium:magnesium). That example uses triethylene glycol di-2-ethyl hexanoate.

According to claim 1, the PVB contains an adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 4:1 to about 5:1 (weight:weight, potassium:magnesium). There is nothing in JP '490 that teaches or suggests use of an adhesion control agent comprising a mixture of potassium and magnesium salts in the claimed ratio.

According to claim 3, the plasticizer is tetraethylene glycol di(2-heptanoate) (4G7) and the adhesion control agent comprising a mixture of potassium and magnesium salts in a ratio that is in a range of from about 2:1 to about 5:1 (weight:weight, potassium:magnesium). JP'490 doesn't teach this combination and has a strong preference for triethylene glycol di-2-ethyl hexanoate and, thus, leads away from the invention of claim 3.

For the above reasons, withdrawal of the rejections is respectfully requested.

In view of the foregoing and the reasons presented in the Amendment filed August 3, 2007, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,

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